

4.5 HAZARDS AND HAZARDOUS MATERIALS

4.5.1 INTRODUCTION

This section describes the existing conditions with respect to hazards at the project site and potential impacts related to hazards and hazardous materials that may occur during construction and occupancy of the project. Regulations and policies affecting hazardous conditions and materials are also described in this section. Information presented in this section was obtained from the following sources: Demolition Level Environmental/Regulated Building Materials Survey Report, included in **Appendix 4.5**; Phase I and Phase II Environmental Site Assessment (ESA), included in **Appendix 4.5**; and the City of Santa Clara General Plan (http://santaclaraca.gov/community/au_gen_plan_index.html).

The Phase I and Phase II ESA, performed by LFR, Inc., in June 2007 and July 2007, respectively, included an assessment of Parcels 1 and 2. The assessment included a record search for Parcel 3 as well. However, because no listings were found for Parcel 3, this section focuses on Parcels 1 and 2 only.

Public comments related to hazards and hazardous materials received in response to the Notice of Preparation for this environmental impact report (EIR) are summarized below

- Commenters raised concerns regarding the clean up of hazardous materials left at the site from the previous hospital use. A plan and timeline for cleanup was requested.
- Several commenters raised concerns regarding contamination of Saratoga Creek during and after construction from asbestos and radioactive material. Information regarding monitoring methods was requested.
- Commenters requested information regarding soil samples and where they would be taken.
- Several commenters requested information regarding dust and airborne materials during the demolition and construction phases of the project.
- Information was requested regarding potential power failures.
- Several commenters raised concerns regarding construction safety plans for the project.
- Commenters requested information regarding the availability of the information that was requested.
- Commenters raised concerns regarding toxins in and near the hospital buildings on site and requested information regarding potential groundwater contamination that could occur during construction.

These scoping comments are addressed in the impact analysis presented below. Note that comments related to Saratoga Creek are discussed in **Section 4.6, Hydrology and Water Quality**, comments related

to airborne materials are discussed under **Section 4.2, Air Quality**, and comments related to police protection are discussed under **Section 4.10, Public Services**.

4.5.2 ENVIRONMENTAL SETTING

A number of properties may cause a substance to be considered hazardous, including toxicity, ignitability, corrosivity, or reactivity. According to the State of California, hazardous material is defined as “a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed” (California Code of Regulations Section 66084).

4.5.2.1 Historical Use of Project Site

Prior to the development of the hospital, the project site was used for agricultural production. Aerial photographs between 1956 and 1998 (included in **Appendix 4.6**) show that the majority of the site contained orchards until 1965. Construction of the main hospital building associated with the Kaiser facility began in 1962, and the site was developed in phases through 1968. Detailed information about the main hospital building and the accessory buildings surrounding it is provided below. See **Figure 4.5-1, Project Site Map and Soil Boring Locations**, for a location map of the hospital building on site.

Main Hospital Building

The hospital building is a seven-story structure situated above a basement with mechanical penthouses on the roof. The building contains approximately 382,000 square feet of space, with each floor encompassing from 34,000 to 60,000 square feet. This building is divided into a west section, center section, and eastern section. The building has been vacant since approximately August 2007. The building was utilized as a hospital with administrative offices, emergency services, operating rooms, cafeteria, morgue, mechanical rooms, and patient facilities.

The building consists of pre-cast concrete panels and reinforced concrete columns with decorative metal siding, decorative stone facade and glass enclosing the perimeter. The southern portion of the roof of the hospital building has two sets of solar panels.

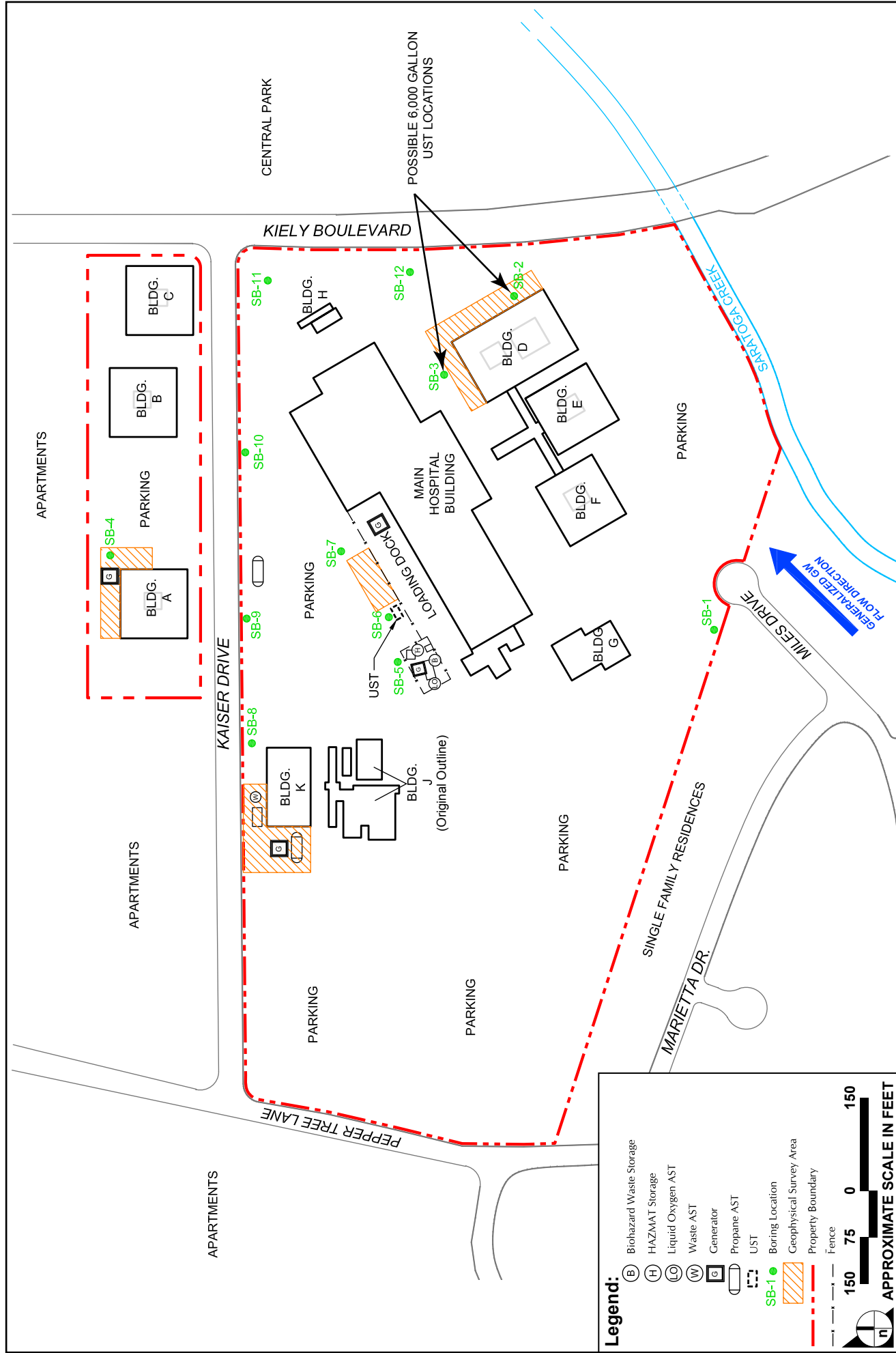


FIGURE 4.5-1
Project Site and Soil Boring Locations

A concrete structure that houses two approximately 2,000-gallon and 5,000-gallon above-ground storage tanks (ASTs) for the storage of liquid oxygen and a caged area for the storage of compressed gas cylinders, such as but not limited to, oxygen and nitrous gases, is located in the parking lot on the northwest side of the main hospital building (adjacent to the loading dock).

Another enclosed caged area labeled 'hazardous waste storage' is connected to the north side of the concrete building. This area was used to store medical waste in 55-gallon drums for secondary containment as well as other hazardous wastes such as waste oil, fluorescent light tubes, and ballasts (LFR 2007d). A diesel powered emergency generator was located on the west side of this hazardous waste storage area.

Buildings A-C

Buildings A, B, and C are located north of Kaiser Drive. These buildings were constructed in 1980. Each building has a similar one-story structure layout with a footprint of approximately 10,000 square feet.

Buildings D through K

Building D is a single-story structure, observed in good condition, and encompasses approximately 19,300 square feet. The building was vacant at the time of LFR assessment and was utilized as an X-Ray facility.

Building E is a single-story structure, observed in good condition, and encompasses approximately 10,000 square feet. The building has a similar layout and construction material history as buildings D and F. The building was vacant at the time of LFR assessment and was utilized as a medical office facility.

Building F is appears nearly identical to Building E. Building F is a single-story structure, observed in good condition, and encompasses approximately 10,000 square feet. The building has a similar layout and construction material history as buildings D and F. The building housed the pharmacy and was in use to store equipment at the time of LFR's survey.

Building G is situated west of the other auxiliary buildings and is a single story slab on grade structure encompassing approximately 6,250 square feet. The building formerly housed pediatrics offices.

Building H is located east of the main hospital and encompasses approximately 1,000 square feet. The building is divided into two sections, a mobile CAT scan unit and an attached wood framed building.

Building J reportedly contained four mobile office trailers connected by a raised walkway. Three trailers were sold prior to the vacancy of the hospital tenant and only one unit remains on site.

Building K is located northwest of the main hospital near Building J. The building contains conference rooms, a records room, information technology (IT), security, and facilities. The building is a single-story metal-framed building reportedly constructed by 1982.

Parking Lot Structures

Four wood parking structures that were used as guard shacks are present in the parking lot west of the main hospital building. The structures are constructed of painted wood with rolled asphalt roofs. All four structures are less than 100 square feet and are constructed on top of the parking lot asphalt without a foundation.

Site Observations

There is one 10,000-gallon, double-walled fiberglass diesel underground storage tank (UST) located in the parking lot on the northwest side of the main hospital building (adjacent to the loading dock) used to provide fuel for two emergency generators on site. The UST was reportedly installed in 1988. The UST has a monitoring system, and is permitted with the Santa Clara Fire Department. The UST's monitoring system is checked on a daily basis (LFR 2007d). No leaks have been reported for this UST.

Two propane tanks (size unknown) were observed at the site. One was associated with a generator located next to Building A and the second tank owned by the City of Santa Clara was located at the entrance to the site. Two approximately 2,000-gallon and 5,000-gallon liquid oxygen ASTs were observed next to the hazardous waste storage area. LFR also observed two 5,000-gallon emergency water ASTs located on the west side of Building K.

Phase I/II Environmental Site Assessment

Phase I ESA is used to assess whether potentially hazardous materials are located on a property. A Phase I ESA generally includes the following information: a site description, including a title search and historical information on the site; review of records kept by agencies that typically regulate hazardous materials (i.e., Regional Water Quality Control Board, Santa Clara Fire Department, etc.) including both Federal and State records; a site reconnaissance; interviews; and a findings, opinion, and conclusion. Standards for Phase I ESAs have been developed by the American Society for Testing and Materials (ASTM).

Phase I ESAs are used routinely to determine the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products, onto the surface or into

the ground, groundwater, or surface water of the property. If a Phase I ESA finds that hazardous materials may have been released on the property, then a Phase II ESA is usually recommended.

A Phase II investigation typically includes all of the above, plus collection and analysis of soil and water samples. Based on the results, the Phase II ESA may recommend additional testing, remediation, and/or other controls to address contamination.

Based upon the previous use of the site as a large hospital facility and the proposed project's action of demolition of approximately 450,000 square feet of building space, a Phase I Environmental Site Assessment was completed for the project site in June 2007 and is included in **Appendix 4.5**.

As part of the Phase I ESA, a government records report, prepared by Environmental Data Resources (EDR), was obtained. This report searches federal and state databases, including the California Government Code 65962.5 list and databases maintained by the San Francisco Bay Regional Water Quality Control Board (RWQCB), for potential sources of hazardous substances or petroleum that might affect the soil and/or groundwater quality at the project site and its vicinity.

On-Site EDR Listings

Based on the records report, the project site is listed on the following databases:

- California Hazardous Materials Incident Report System (CHMIRS) for information on reported hazardous material incidents (accidental releases or spills).
- California Facility Inventory Database on Underground Storage Tanks (CA FID UST) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board.
- Emissions Inventory Data (EMI) contains toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.
- Emergency Response Notification System (ERNS) maintains information regarding emergency response incidents and releases of oil and other hazardous materials.
- FINDS database directs users to other databases with detailed information regarding hazardous materials.
- HAZNET contains facility and manifest data extracted from the copies of hazardous waste manifests received each year by the California Department of Toxic Substances Control (DTSC).
- Historical underground storage tank (HIST UST) database.

- Resource Conservation and Recovery Act Information (RCRAInfo) database. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).
- Statewide Environmental Evaluation and Planning System (SWEEPS), (this listing is no longer updated or maintained).
- Underground Storage Stank (UST) lists active UST facilities gathered from the local regulatory agencies.

All EDR listings for the project site give the address 900 Kiely Boulevard. There are no listings for the northern portion of the property containing Buildings A, B, and C (2885 Kaiser Drive). Therefore, the remainder of this discussion focuses on Parcels 1 and 2.

The site is listed on the UST, CA FID, HIST UST, and SWEEPS databases. The CA FID and HIST UST databases reported two former 10,000-gallon diesel USTs that were installed at the site in 1978 and 1983. No other information was provided. LFR was not able to obtain information regarding the removal and/or closure of these USTs. Therefore, this is considered an environmental issue for the site.

The SWEEPS database identifies the same USTs and lists their contents as diesel. No information was listed under the UST database as this is no longer updated; however, this listing is likely for the 10,000 gallon diesel UST that was located at the site.

The site was also listed on the FINDS database with more detailed information found in the HAZNET, and RCRA databases. The HAZNET listing contains information from hazardous waste manifests received each year by the DTSC. The HAZNET database lists 11 waste streams disposed under manifest that included other inorganic solid waste, unspecified solvent mixture waste, unspecified organic liquid mixture, empty containers less than 30 gallons, laboratory waste chemicals, detergent and soap, liquids with pH <2, photo-chemicals/photo-processing waste, asbestos containing waste, aqueous solution with 10% or more total organic, oxygenated solvents, waste oil and mixed oil, hydrocarbon solvents, and PCBs. These waste streams are typical for a hospital. As the wastes were listed on hazardous waste manifests indicating off-site transport, and the hospital use on the site has ceased, the HAZNET listings are not anticipated to be unresolved issues necessitating a Phase II ESA. The RCRA database lists the site as a large quantity generator of hazardous waste with no violations reported.

The site is listed on the ERNS and CHMIRS databases, which is a listing of emergency responses and hazardous materials incidents, respectively. The ERNS database reports that Freon caught fire and released fumes through the air-conditioner. The incident reportedly occurred on October 16, 1990, and as a result the building was ventilated. The CHMIRS database lists an unspecified incident on April 28, 1988;

no details were provided. The database reports a completion date of April 28, 1988. These incidents are not expected to warrant a Phase II ESA.

The site was also listed on the EMI database with a standard industrial classification (SIC) code of 8062, for general medical and surgical hospitals. The database reports air emissions of total organic hydrocarbon gases and reactive organic gases over the years 1987 through 2005. The emissions were permitted with the Bay Area Air Quality Management District; therefore, this listing is not anticipated to warrant a Phase II ESA.

Off-Site EDR Listings

A total of seven separate properties within a 0.5-mile radius of the project site were found on the EDR search. However, most of the database listings had no violations or were closed by the enforcement agency. The most pertinent listings are described below.

Chevron #9-4300 2790 Homestead Road

This site was listed on the LUST (Leaking Underground Storage Tanks) database. MTBE (Methy Tertiary Butyl Ether), a historical gasoline additive that has been banned by the government, was found in the groundwater in the vicinity. Remedial action is currently underway to clean up this site.

Arco #2153 2800 Homestead Road

This site was listed on the LUST database. MTBE was detected in the groundwater surrounding the site. This site underwent remediation and the case was closed in December 2004.

Roy's Shell 2898 Homestead Road

This site was listed on the LUST database. MTBE was detected in the groundwater surrounding the site. This site underwent remediation and the case was closed in September 2003.

City of Santa Clara Fire Department

As part of the Phase I ESA, files at the Santa Clara Fire Department (SCFD) were reviewed for the site regarding hazardous materials, ASTs (above-ground storage tanks) and USTs. Documents reviewed include annual inspection reports, which noted multiple violations received over the years; however, the violations appeared to be mainly administrative in nature and were corrected on subsequent inspections. No major violations were reported.

Two permit applications (not dated or signed) were reviewed for two 10,000-gallon diesel USTs that were installed at the site in 1978 and 1983. These tanks were also listed in the HIST UST database provided by EDR. However, the specific location of these tanks is not known. In addition, a Soil Sampling Report dated September 16, 1987 was reviewed in connection with these USTs. According to this report, a 10,000-gallon, single-wall fiberglass diesel UST was removed from the site on August 28, 1987. During the removal activities, two soil samples were collected from the base of the tank excavation and analyzed for total petroleum hydrocarbons as diesel (TPH-d). The collected soil samples did not have TPH-d detected above the laboratory reporting limit. According to the Chief Engineer with Kaiser, this tank was removed and replaced with the current 10,000-gallon, double-walled diesel UST as describe previously under subsection “site observations.” Based on the information reviewed, it is likely that the older USTs were located in the immediate area of the current UST on site. However, based on the lack of information regarding the removal and/or closure of these USTs, the older USTs are considered an environmental issue for the site

Phase I ESA Findings

The Phase I ESA determined that several areas of the project site raise concern about the potential for hazardous materials and contamination from a variety of uses. The risk associated with these areas could potentially affect construction workers and/or individuals on site when the project is occupied. The individual areas that require further analysis are listed as follows:

- One 10,000-gallon UST used to store diesel was installed at the site in 1988 and is currently active on site.
- Reportedly, two 6,000-gallon diesel USTs were installed at the site in 1983. However, the specific locations and status is unknown.
- The site was listed on the EDR database as a large quantity generator of solvents and the hazardous waste storage area does not have secondary containment.

Phase II ESA

LFR performed a subsurface investigation to assess the presence of regulated chemical compounds in the soil beneath the site and to address findings associated with the Phase I ESA. Soil boring locations were chosen based on historical use of the site, including areas of known or suspected USTs, hazardous waste storage and/or handling areas, the presence of cooling towers (which may have included use of Chromium (Cr+6)), the prior use of the site for agricultural purposes, and possible use of low-level radioactive materials as part of historical hospital activities (see **Figure 4.5-1** for soil boring locations). The historical use of cooling towers and radioactive equipment at the hospital building led to their inclusion in the

Phase II ESA although these were not identified during the Phase I ESA. Those borings that were not located to address a specific issue or possible concern were advanced at points across the site to provide a broad sense of subsurface conditions at the site.

As disclosed in the Phase II ESA, there was one sample that detected total petroleum hydrocarbons associated with motor oil near Building D. However, the amount detected for this soil boring location did not exceed the significance thresholds established by the US EPA.

Findings

The Limited Phase II ESA performed analyzed the site for several areas of concern. Each issue and the findings are summarized below:

- There was a reported prior presence of two 6,000-gallon USTs at unknown locations with no record of their removal. LFR used geophysical methods to look for indications of their potential locations near the main hospital building, building D, K, and A, and found no anomalies. Three borings in areas of suspected UST locations were drilled and analyzed for TPH presence that would indicate a leaking UST. The results of laboratory analysis of samples collected from those borings did not detect any hazardous materials at or beyond established significance thresholds;
- The hazardous waste storage area was investigated with one downgradient boring where both soil and groundwater samples were collected and chemically analyzed. Results of laboratory analysis of the samples did not detect any impacts;
- Existing and prior 10,000-gallon UST locations were investigated with two borings, with soil and groundwater samples collected and chemically analyzed for each boring. Results of laboratory analysis of the samples did not detect any hazardous materials at or beyond established significance thresholds;
- The potential for general impacts from the use of solvents, Cr+6 in cooling towers, radionuclides, and petroleum products at the site were evaluated by collecting and analyzing groundwater samples from one upgradient and five downgradient locations. The results of laboratory analysis of these samples did not detect any hazardous materials at or beyond established significance thresholds; and
- Impacts from the prior use of the site for agricultural purposes were evaluated by analyzing four soil samples for organochlorine pesticides (OCPs). The results of laboratory analysis of these samples did not detect any hazardous materials at or beyond established significance thresholds.

The Limited Phase II ESA conducted by LFR at the site did not detect any adverse impacts to the soil or groundwater at the site that may have been caused by prior activities at the site.

Asbestos, Lead-Based Paint, and Mercury Hazards

The Phase I ESA stated that based on the dates of construction (1962 and early 1980s), the main hospital building and Buildings A through F, and K have the potential to contain asbestos-containing materials (ACMs). Until the 1970s, asbestos was used in a variety of building materials (US EPA 2008). Buildings G and H were constructed sometime in the early 1990s; therefore, it is unlikely that ACMs are present in those buildings. A Building Materials Survey (BMS) was conducted by LFR in October 2007 (included in **Appendix 4.5**) in preparation for the potential demolition of the hospital buildings.

The BSM included the main hospital building, buildings D, E, F, G, H, K, and the structure associated with building J. Additionally, LFR surveyed the four guard posts/parking attendant booths located in the parking area. Approximately 1,700 bulk samples of suspect ACMs were collected from the site. Materials containing greater than or equal to 1 percent asbestos are considered to be ACMs (US EPA 2008). The BSM found that the project site has ACMs, lead-based paints (LBPs) and potentially regulated electrical, heating, ventilating, and air conditioning (HVAC), and mechanical system components that were identified in structures on the project site. The BSM reported that materials in the following structures contained greater than 1 percent asbestos: building D, E, F, H, J, K, covered walkway, and the Main Hospital.

The Phase I ESA stated that based on the date of building construction (1962 and early 1980s), it is possible that LBP is present in the main hospital building and Buildings A through F, and K. Buildings G and H were constructed sometime in the early 1990s; therefore, it is unlikely that LBP is present in those buildings. A Lead-Based Paint and Mercury Hazards Survey (LBPMS) was conducted by LRF in October 2007 (included in **Appendix 4.5**) in preparation for the potential demolition of the hospital buildings.

The LBPMS surveyed the main hospital building, buildings D, E, F, G, H, and K. The survey approach included a visual assessment of each building to locate, as far as practicable, suspect LBPs and PCBs. LFR sampled materials from those areas that were accessible. Materials, such as any paint or coating, containing 1.0 milligrams per square centimeter (mg/cm²) of lead or greater is considered to be LBP (LFR 2007b).

The LBPMS found that the project site has LBPs, light fixtures known to use light tubes with mercury-containing powder, and potentially regulated fluids, gases, refrigerants, and components were identified in structures on the project site. The LBPMS reported that materials in the following structures contained LBPs: building D, G, the parking lot, and the main hospital. No lead based components were identified in Buildings E, F, H, and K. Mercury-containing light tubes in fluorescent bulbs were present throughout the site.

Buildings A, B, and C were not included in the BSM. However, due to the year of construction, these buildings are also expected to contain ACMs, LBPs, and other regulated building materials encountered in the other buildings.

Fire Hazards

The project site is surrounded on all sides by developed uses. Central Park is to the east, single-family residential is to the south and west, and multi-family residential is to the north and northwest. No wildlands are present near the site. Fire hazards within the vicinity of the project would be associated with human activities.

The City is provided firefighting services by its Fire Department. For more information regarding the City's Fire Department, see **Section 4.10, Public Services**.

Emergency Response Plan

The City has developed an Office of Emergency Services, within the Planning Department, that establishes policies, procedures, and an organizational structure for responding to and recovering from a major disaster within the City of Santa Clara (Santa Clara 2000). To serve in the event of a disaster, an Emergency Operations Center has been constructed as the focal point for collecting and analyzing disaster information to develop the best possible utilization of available resources to mitigate the effects of the disaster.

Emergency management operations within the City will integrate existing community resources in the public and private sectors with City-owned resources. Existing resources in the community will be organized so they can be made available on short notice. The City's Resources Manual inventories local food markets, drug stores, first aid stations, fuel supplies, transportation resources, contractors, and communications stations. It also lists City personnel who are trained in skills that would be useful in an emergency.

As an emergency supplement to local hospitals which may have a reduced capacity following an earthquake, the City has a packaged disaster hospital with a 200-bed capacity that can be set up in 24 hours. In addition, the materials necessary to establish several first aid stations are stored within the City. A system of shelters in major public buildings is capable of housing over 30,000 people for short periods. City employees have been trained in shelter management.

To cope with an emergency, the design of the water and electric systems includes some duplication of critical elements and margins of safety to meet short-term demands. For example, the water system can

meet peak demands for at least 12 hours with the loss of an electrical substation or the loss of the largest imported water source. Following a complete power failure, the average-day demand can still be met for at least 12 hours using stored waters and standby pumps. However, a disaster would not likely cause complete breakdown of the City's electric system.

4.5.3 REGULATORY CONSIDERATIONS

4.5.3.1 Federal Regulations

The US EPA is the main federal agency responsible for enforcing regulations relating to hazardous materials and wastes, including evaluation and remediation of contamination and hazardous wastes. The US EPA works collaboratively with other agencies to enforce materials handling and storage regulations and site cleanup requirements. The Occupational Safety and Health Administration (OSHA) and the Department of Transportation (DOT) are authorized to regulate safe transport of hazardous materials.

Federal regulations which regulate the handling (including transportation), storage, workplace safety, and disposal of hazardous materials and wastes are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR), specifically the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Responsibility, Compensation, and liability Act of 1980 (CERCLA). RCRA includes procedures and requirements for reporting releases of hazardous materials and for cleanup of such releases. RCRA also includes procedures and requirements for handling hazardous wastes or soil or groundwater contaminated with hazardous wastes. CERCLA delineates the liability for contamination between current property owners and others. The Hazardous Materials Transportation Act is administered by the DOT via its issuance of inspections, training, and transportation requirements and information; the federal government delegates enforcement authority to the states.

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) are emissions standards set by the US EPA for an air pollutants that may cause an increase in fatalities or in serious, irreversible, or incapacitating illness. The US EPA delegates authority over NESHAPs to local air agencies.

4.5.3.2 State Regulations

State agencies that regulate the use of hazardous materials include the California Environmental Protection Agency (Cal/EPA), the Office of Emergency Services (OES), the Department of Health Services (DHS), the Department of Toxic Substances Control (DTSC), and the RWQCB. The DTSC administers US EPA's standards regarding public health effects of soil contamination, while the RWQCB administers

State water quality standards for surface and groundwater. Lead responsibility for remediation depends on the proposed use of a parcel, the character of waste contaminants, and the need for site monitoring.

The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. State regulations applicable to hazardous materials are contained in Titles 8, 22, and 26 of the California Code of Regulations (CCR) and include the State Water Code, Underground Storage Tank Code, Cortese Act (listing of hazardous waste and substances sites), and Proposition 65 (safe drinking water and toxics enforcement).

Cal/OSHA regulates work practices at asbestos levels less than 1 percent. Samples containing less than 1 percent asbestos are regulated as outlined in 8 CCR Section 1529.

4.5.3.3 Local Regulations

The Bay Area Air Quality Management District (BAAQMD) is the local NESHAP authority for the Bay Area. The local NESHAP authority requires notification 10 business days before the commencement of demolition activities or work that affects regulated ACMs.

The Santa Clara Fire Department Hazardous Materials Division is responsible for administering federal, state, and local policies, including

- consulting with businesses on how to safely store and use hazardous material;
- responding to hazardous materials emergencies;
- training emergency response personnel in hazardous materials incident response;
- conducting inspections of facilities where hazardous materials and wastes are used and/or stored;
- reviewing construction plans for facilities using hazardous materials;
- investigating exposures to or releases of hazardous materials; and
- responsible for implementing the Certified Unified Program Agency (CUPA) program for the City of Santa Clara.

4.5.4 IMPACTS AND MITIGATION MEASURES

4.5.4.1 Significance Criteria

The impact of the proposed project related to hazards and hazardous materials would be considered significant if it would exceed the following standards of significance, in accordance with Appendix G of the *State CEQA Guidelines*:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Issues Not Discussed Further

The project site is not included on the list of hazardous material sites compiled pursuant to Government Code Section 65962.5. Therefore, no additional discussion related to this issue is required.

A review of area maps and the Airport Land Use Commission Plan of Santa Clara County shows that the project site is not located within an airport land use plan, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip (Santa Clara County 1992). Therefore, implementing the project would not result in a safety hazard for people residing or working in the project area as it relates to aviation issues. No further discussion related to this issue is necessary.

Project implementation would not expose people or structures to a significant loss, injury, or death involving wildland fires, including where wildland is adjacent to urbanized areas or where residences are intermixed with wildland. The vicinity is urban and developed primarily residential uses. No further discussion of this issue is needed.

Methodology

Project impacts related to hazards and hazardous materials were evaluated based on existing and proposed land uses within the proposed project site and the potential to expose sensitive receptors, including residents and construction workers, as well as the surrounding environment, to hazards or hazardous materials during construction activities and after development/redevelopment of the site. A Phase I and Phase II ESA as well as a survey for regulated building materials (see **Appendix 4.5**) was prepared to determine any existing hazardous waste issues related to former or current operations within the project site and in the surrounding vicinity. Based on the findings of the reports, impacts were evaluated relative to current regulatory standards. Mitigation measures were developed to address recognized environmental concerns, as well as for impacts from the use and disposal of hazardous materials.

Project Impacts and Mitigation Measures

Impact HAZ-1: The proposed residential project would not create a significant hazard to the public or the environment through the routine use, transport, and disposal of hazardous materials. (*Less than Significant*)

Given the residential and recreational uses that would be allowed by the project, biological and radiological hazards would not be a concern.

Storage and use of hazardous materials within the residential and recreational uses would involve small volumes of typical household cleaning agents, paints and other building material finishing products, paints, fertilizers, pesticides, automotive engine, and transmission cleaning agents, lubricants, etc. Such uses of hazardous materials do not generate hazardous air emissions and rarely, if ever, involve the use of acutely hazardous materials that could pose a significant threat to the environment or human health.

Hazardous wastes associated with residential and recreational uses typically involve empty or partially filled containers of liquid chemical products, fertilizers, used motor oil, automotive or electronic batteries, unused computers, etc. Residential trash, recycling, and green waster services are provided by Mission Trail Waste Systems. They do not accept household hazardous waste. The Santa Clara County

Department of Environmental Health provides household hazardous waste collection sites throughout the County.

The proposed project would be consistent with applicable federal and state regulations regarding hazardous waste and materials. The proposed project would be required to adhere to the goals, objectives, and recommendations of the Santa Clara Fire Department Hazardous Materials Division to reduce impacts related to use, storage, and transport of hazardous materials. Compliance with the applicable regulations would minimize or avoid significant environmental hazards to the environment and people. The impact would be less than significant.

Mitigation Measure: No mitigation measures required.

Impact HAZ-2: **Construction of the project could uncover and expose construction workers and future residents to hazards from USTs (*Potentially Significant; Less than Significant with Mitigation*)**

Construction activities associated with the project could expose construction workers and residents to hazards associated with the two unidentified 6,000-gallon USTs. The records search, conducted as part of the Phase I ESA, indicated that two 6,000-gallon USTs may be located on the project site. However, no USTs were observed during the site reconnaissance, and no record of their removal was found. Therefore, their presence or absence from the site could not be confirmed even though a limited geophysical analysis was performed.

No significant levels of hazardous compounds were found in the soil and groundwater samples collected. The results of the testing are summarized in **Appendix 4.5**. The only detectable levels of substances were found for TPH-d, associated with motor oil. The levels found were well below the laboratory limits and, therefore, do not constitute a significant risk for the site during construction and occupancy.

The samples tested from the site represent all of the discussed land uses that many have contaminated soil or groundwater. However, due to the unknown nature of the two 6,000-gallon USTs, and soil or groundwater contamination associated with a leaking UST could not be confirmed.

Until the mid-1980s, most USTs were made of bare steel, which is likely to corrode over time and allow UST contents to leak into the environment. Faulty installation or inadequate operating and maintenance procedures also can cause USTs to release their contents into the environment. The greatest potential hazard from a leaking UST is that the petroleum or other hazardous substance can seep into the soil and contaminate groundwater and exposure to hazardous substances can result in health effects. A leaking UST can also present other health and environmental risks, including the potential for fire and explosion

(US EPA 2006). The potential to uncover USTs or contaminated soil during site construction and project occupancy is considered a potentially significant impact prior to mitigation.

Mitigation Measure HAZ-2: Surveys shall be done in accordance with federal, state, and local regulations in the areas listed to contain USTs and submitted to and approved by the City's Planning department prior to any major ground-disturbance activities associated with construction.

USTs discovered during construction and/or project occupancy, including the UST installed in 1988, shall be removed by a certified contractor in accord with OSHA and other applicable standards and requirements, and City health officials shall observe the removal to evaluate potential hazards associated with the USTs. The removal of USTs and any contaminated soil shall be conducted in accordance with federal, state, and local regulations regarding USTs.

Significance After Mitigation: Implementation of **Mitigation Measure HAZ-2** would reduce the risk of exposing people to hazards associated with USTs and the impact would be reduced to a less-than-significant level.

Impact HAZ-3: **Regulated building materials present in the buildings to be demolished on the project site could be released to the environment and pose a risk to construction workers or the public. (Potentially Significant; Less than Significant with Mitigation)**

Asbestos-containing materials were identified during the Demolition Level Building Materials Survey Report in a majority of the structures existing on the project site. Demolition of the existing structure could expose lead-based paints (LBP) and mercury powder to on-site construction workers during demolition activities. LBPs and fluorescent bulbs were identified during the Lead-Based Paint and Mercury Hazards Survey in a majority of the structures existing on the project site. LFR recommends that all components that tested positive for LBP be removed or that the paint on these components be stabilized prior to any potential disturbance from demolition or related activities by a qualified abatement contractor utilizing Department of Health Services certified workers. Lead-related construction must be in compliance with Title 17, CCR, Division 1, Chapter 8: Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards. The mercury-containing light tubes are subject to special disposal/recycling requirements, in accordance with CCR Title 22.

Demolition of the existing structures could expose construction workers to regulated building materials during demolition activities. Furthermore, Santa Clara High School is within 0.25 mile of the project site.

Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested with authority to regulate airborne pollutants through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work. The local OSHA must also be notified of asbestos abatement to be carried out. OSHA requires that asbestos be handled by properly certified professionals.

Mitigation Measure HAZ-3a: The applicant, with prior City written approval, shall contract with experts qualified to identify and remove asbestos-containing materials. These are to be removed from the site and properly disposed of prior to, and as a condition of, the City of Santa Clara issuing a permit for site demolition.

Mitigation Measure HAZ-3b: The applicant, with prior City written approval, shall contract with experts qualified to identify and remove lead-based paint and mercury. These are to be removed from the site and properly disposed of prior to, and as a condition of, the City of Santa Clara issuing a permit for site demolition.

Impact After Mitigation: Implementation of **Mitigation Measure HAZ-3a** and **3b** would reduce the risk of exposing people to hazards associated with regulated building materials by incorporating the proper measures to remove all regulated building materials during demolition activity. This would reduce potential hazardous material risk to a less-than-significant level.

Impact HAZ-4: **The proposed project would develop residential units that would not conflict with any adopted emergency response plan. (*Less than Significant*)**

The proposed project would develop residential land uses throughout the project site. The existing and additional driveways would be constructed to ensure proper access for private and appropriate emergency vehicles. The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Access to the site would be adequate for emergency vehicle response. Traffic impacts due to implementing the project are being mitigated as necessary as described **Section 4.12, Transportation and Traffic**. Therefore, this impact is considered less than significant.

Mitigation Measure: No mitigation measures required.

Cumulative Impacts and Mitigation Measures

The following cumulative impact analysis evaluates the significance of potential impacts of the proposed project in conjunction with the projects included in **Table 4.0-1, Related Projects**. This list includes approved and foreseeable projects in the City. Many of the approved and future projects would involve redevelopment and could have similar issues related to hazards as the proposed project. Future development in the City of Santa Clara may potentially involve the use of some amount of hazardous materials during construction and/or operation and may generate hazardous wastes. The potential use and transport of hazardous materials in the project vicinity could potentially expose persons and/or the environment to hazardous materials. The applicants of future projects would be required to comply with regulating agencies as well as the County to implement appropriate measures for the land use proposed to reduce the risk associated with the use and transport of hazardous materials.

The project would not result in significant impacts associated with exposure to soil or groundwater contamination. As a result, the project's contribution to exposure to unidentified contaminants in soil or groundwater, in combination with other development under the general plan, would not be cumulatively considerable.

Mitigation Measure: No mitigation measures required.

4.5.5 REFERENCES

- California Department of Toxic Substances Control 2008. "Hazardous Waste and Substances Sites (Cortese List)." http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm March 10.
- United States Environmental Protection Agency 2008. "Pollution, Prevention, and Toxics, Asbestos." <http://www.epa.gov/asbestos/pubs/ashome.html>. March 13.
- United States Environmental Protection Agency 2006. "Overview of the Federal Underground Storage Tank Program." <http://www.epa.gov/swrust1/overview.htm>. October 12.
- LFR Inc. 2007a. Building Materials Survey in preparation for Demolition Activities at the Kaiser Hospital Complex, 900 Kiely Boulevard Santa Clara, California. October.
- LFR Inc. 2007b. Lead-Based Paint and Mercury Hazards Survey Kaiser Hospital, 900 Kiely Boulevard Santa Clara, California. October.
- LFR Inc. 2007c. Limited Phase II Investigation Report Kaiser Permanente Hospital, Santa Clara, 900 Kiely Boulevard Santa Clara, California. July.
- LFR Inc. 2007d. Phase I Environmental Site Assessment Kaiser Hospital, 900 Kiely Boulevard Santa Clara, California. June.

